

Application No. 10/618,243
Response to Office Action

Customer No. 01933

Listing of Claims:

1. (Currently Amended) An ink-jet recording method
comprising: ~~the step of,~~

providing an ink to an ink receiving sheet,

wherein the ink comprises fine resin particles, a

5 water-soluble dye, water and an organic solvent, ~~and~~

wherein the ink receiving sheet comprises a support and a
porous ink receiving layer ~~having~~ which has pores and is provided
on the support, and

wherein the ink and the ink receiving sheet satisfy the
10 following formula

$$|D_{L10} - D_{M50}| = 170 \text{ nm},$$

~~wherein~~ where:

D_{L10} is ~~the~~ a particle diameter at which 10 percent of
the fine resin particles ~~in~~ by number have a diameter from a
15 minimum diameter D_{L0} up to and including D_{L10} , and

D_{M50} is ~~the~~ a pore diameter measured using a mercury
porosimeter at which 50 percent of the pores ~~in~~ by volume
have a diameter from a minimum diameter D_{M0} up to and
including D_{M50} .

2. (Original) The ink-jet recording method of claim 1,
wherein $D_{L10} - D_{M50}$ is not more than 65 nm.

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3. (Original) The ink-jet recording method of claim 1,
wherein $D_{L10} - D_{M50}$ is not less than 0.

4. (Original) The ink-jet recording method of claim 1,
wherein $DL10 - DM50$ is not less than 20 nm.

5. (Currently Amended) The ink-jet recording method of
claim 1, wherein a polydispersity index (PDI) of the particle
diameter distribution of the fine resin particles in the ink is
from 0.1 to 0.3,

5 where:

$$PDI = (DL90 - DL10) / DL50,$$

~~wherein DL10 is the particle diameter at which 10 percent of
the fine resin particles in number have a diameter from a minimum
diameter DL0 up to and including DL10,~~

10 DL50 is ~~the~~ a particle diameter at which 50 percent of
the fine resin particles ~~in~~ by number have a diameter from a
minimum diameter DL0 up to and including DL50, and

15 DL90 is ~~the~~ a particle diameter at which 90 percent of
the fine resin particles ~~in~~ by number have a diameter from a
minimum diameter DL0 up to and including DL90.

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6. (Original) The ink-jet recording method of claim 1, wherein an average particle diameter of the fine resin particles in the ink is from 10 to 150 nm.

7. (Original) The ink-jet recording method of claim 1, wherein the ink receiving layer contains fine resin particles.

8. (Currently Amended) The ink-jet recording method of claim 1, wherein D_{M50} ~~in the pore diameter distribution curve in the ink receiving layer~~ is from 15 to 40 nm.

9. (Original) The ink-jet recording method of claim 1, wherein minimum film forming temperature (MFT) of the fine resin particle in the ink is from 0 to 60 °C.

10. (Original) The ink-jet recording method of claim 1, wherein surface roughness of the ink receiving layer is not more than 10 nm.

11. (Currently Amended) The ink-jet recording method of claim 1, wherein the support of the ink receiving sheet ~~has~~ comprises a continuous layer of a thermoplastic resin.